



2.4GHz Wireless LAN PCI Card

The D-Link Air DWL-510 is a wireless network PCI card for desktop PCs. This card connects you to a 2.4GHz wireless LAN, giving you secured mobile access to the network. It provides transmission speeds at up to 11Mbps, industry standard interoperability, 64/128-bit data security and ease of use for desktop PC users requiring secure wireless network connection.

Industry-standard Interoperability

With IEEE 802.11b wireless LAN industry standard compliance, this network card provides you with excellent network interoperability.

Network Security

Security is an issue when data is transmitted without the wires. In the air, transmitted data can be easily intercepted if not well protected by a security scheme. The card provides the necessary security, using the 64/128-bit industry-standard WEP (Wired Equivalent Privacy) encryption protocol. Data privacy mechanism is based on a shared key algorithm, as described in the wireless LAN standard.

Easy Installation

With PCI plug-and-play installation, the card can be easily installed into a desktop PC to provide connectivity directly to another 802.11b wireless enabled device (ad-hoc mode) or through an 802.11b Access Point (infra-structure mode).

Detachable Antenna

The card is equipped with an SMA reverse detachable dipole antenna with an effective range of 100 meters indoors, or 300 meters outdoors. Where a longer range is required, you can easily remove this antenna and replace it with a higher Gain antenna.

Key Features

- IEEE 802.11b industry standard compliance
- 2.4GHz frequency band Direct Sequence Spread Spectrum (DSSS)
- Up to 11Mbps enhanced data transfer rate
- 32-bit Bus Master data transfer with PC host
- Detachable SMA reverse dipole antenna
- Security with 64/128-bit WEP data encryption
- Supports Windows 98SE, 2000, ME, XP

DWL-510

Technical Specifications

2.4GHz Wireless LAN

Standards & Hardware Specifications

LAN Standard

IEEE 802.11b wireless LAN

Bus Type

- PCI 2.2 specifications
- 32-bit Bus Master data transfer mode

Media Access Control Protocol

CSMA/CA

Network Architecture Types

- Supports Ad-Hoc and Infrastructure Modes
- Cell to cell roaming
(IEEE 802.11b compliant)

Data Rates

- 11 Mbps
- 5.5 Mbps
- 2 Mbps
- 1 Mbps
- Auto fallback

Data Rate & Modulation Scheme

- 11Mbps: CCK
- 5.5Mbps: CCK
- 2Mbps: DQPSK
- 1Mbps: DBPSK

Operating Channels

- North America (FCC): 11
- Canada (DOC): 11
- Europe (ETSI): 13

Frequency Range

2.4 to 2.4835 GHz

Modulation Techniques

- Direct Sequence Spread Spectrum (DSSS)
- Complementary Code Keying (CCK)
- 11-chip Barker Sequence

Antenna

Detachable 2dBi Gain dipole antenna (reverse SMA connector)

Receive Sensitivity @ 8% PER (Packet Error Rate)

- 11Mbps: < -80dBm (CCK)
- 5.5Mbps: < -87dBm (CCK)
- 2 Mbps: < -87dBm (DQPSK)
- 1 Mbps: < -89dBm (DBPSK)

Transmitter Output Power

15dBm (Typical)

Range Coverage (Open Environment)

- Indoors: Up to 100 meters *
- Outdoors: Up to 300 meters *

* Environmental factors may adversely affect operating range

Key Management

Automatic Dynamic Key Allocation (ADKA) through public key

Data Security

64, 128-bit WEP (Wired Equivalent Privacy) encryption

Physical & Environmental

Diagnostic LEDs

- Link
- Activity

Operating Voltage

3.3V /5V

Power Consumption

- Transmission: 450 mA (max.)
- Reception: 250 mA (max.)

Dimensions

133 (L) x 121 (W) x 21.6 (H) mm

Weight

70 grams

Operating Temperature

0° to 40 °C

Storage Temperature

-20° to 75 °C

Humidity

Up to 95%, non-condensing

Emission Certification

- FCC Class B
- CE Class B

Software

O.S. Support

Windows 98SE, 2000, ME, XP



Ordering Information

DWL-510 802.11b Wireless LAN PCI Card

Please specify your order as follows:

DWL-510/NA North America frequency
DWL-510/EU EU frequency
DWL-510/CN For use in China (China packaging)

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Rev. 02 (Nov 2003)